



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/632,825

Filing Date:

August 4, 2003

Applicant:

Yun-Jung LEE et al.

Group Art Unit:

2812

Examiner:

Evan T. Pert

Title:

Method of Forming Oxide Layer Using Atomic Layer Deposition Method and Method of Forming Capacitor

of Semiconductor Device Using the Same

Attorney Docket:

9862-000016/US

Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314 Mail Stop Amendment August 3, 2005

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information submitted for consideration by the Office (except unpublished U.S. patent applications) are listed on Form PTO-1449 attached hereto.

II. COPIES

A. Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) for each cited pending unpublished U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

	B. Any patents, publications or other information PTO-1449 or on the copies of Form PTO-892, because the previously cited by or submitted to the PTO which has been relied upon for an earlier filing date.	out which are not enclosed herewith, in one of the following applications
	U.S. Serial Number	U.S. Filing Date
	C. Because the present application was/is bein of the U.S. patents or U.S. patent application pattached Form PTO-1449 are enclosed pursus \$1.98(a)(2)(i). Any foreign patent documents attached Form PTO-1449 are enclosed herewith.	publications which are listed on the liant to the waiver of 37 C.F.R.
	D. This is a PCT application in the entry of the A copy of the International Search Report is attact The documents listed on the International Search FPTO-1449 for consideration by the Examiner and from this application. Since the International Search JPO search authorities, copies of these reference USPTO under the trilateral agreement and are above-identified application. (MPEP 1893.03(g))	ched for the Examiner's information. Report are listed on the attached Form and for listing on any patent resulting rch Report was from the US, EPO, or es should have been supplied to the es believed to be in the file of the
III.	CONCISE EXPLANATION OF THE RELEVAN	NCE (check at least one box)
	A. Except as may be indicated below in (B), all information are in the English language (concise of	
	B. A concise explanation of the relevance of information listed that is not in the English lant § 1.98(a)(3)):	of each patent, publication or other aguage is as follows (see 37 C.F.R.
	 See the attached foreign patent office foreign application: Korean Office English translations are provided for 3. Other: 	e Action dated May 11, 2005
	C. The following additional information consideration.	is provided for the Examiner's
IV.	CROSS REFERENCE TO RELATED APPLICA	TION(S)
	A. The Examiner is advised that the following subject matter that may be related to the present application(s) to the Examiner's attention, Appropriately provisions of 35 U.S.C. § 122.	application. By bringing this(these)

Serial No.

the issue fee.

Filing Date

Art Unit

V.	THIS IDS IS BEING FILED UNDER
	A. 37 C.F.R. § 1.97(b): (check <u>only</u> one box)
	1. within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
	2. within three months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
	3. before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
	4. before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.
	B. 37 C.F.R. § 1.97(c): (check <u>only</u> one box)
	before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.
	1. No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
	2. See the certification below. No fee is required.
	C. 37 C.F.R. § 1.97(d):
	after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of

 VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box) The undersigned hereby certifies that: A.		1. See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
 A.	VI.	CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)
communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. § 1.704(d) below in section VII, if applicable; or B. no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)). C. Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. VII. STATEMENT UNDER 37 C.F.R. § 1.704(d) The undersigned hereby states that:		The undersigned hereby certifies that:
a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)). C. Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. VII. STATEMENT UNDER 37 C.F.R. § 1.704(d) The undersigned hereby states that: ach item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS. VIII. PAYMENT OF FEES (check only one box) A. No fee is believed to be due in light of the above-provided certification.		communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. § 1.704(d) below in section VII, if
foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. VII. STATEMENT UNDER 37 C.F.R. § 1.704(d) The undersigned hereby states that: \[\begin{array}{c} \text{ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS. VIII. \(\text{ PAYMENT OF FEES} \) (check only one box) A. \(\text{ No fee is believed to be due in light of the above-provided certification.} \)		a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more
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□ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS. VIII. PAYMENT OF FEES (check only one box) A. ☑ No fee is believed to be due in light of the above-provided certification.	VII.	STATEMENT UNDER 37 C.F.R. § 1.704(d)
foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS. VIII. PAYMENT OF FEES (check only one box) A. No fee is believed to be due in light of the above-provided certification.		The undersigned hereby states that:
A. No fee is believed to be due in light of the above-provided certification.	any inc	patent office in a counterpart application and this communication was not received by
	VIII.	PAYMENT OF FEES (check only one box)
B. A check in the amount of \$180.00 is enclosed for the above-identified fee.		A. No fee is believed to be due in light of the above-provided certification.
		B. A check in the amount of \$180.00 is enclosed for the above-identified fee.

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C. Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. §§ 1.16 or 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,
HARNESS, DICKEY, & PIERCE, P.L.C.

John A. Castellano, Reg. No. 35,094

P.O. Bok \$910 Reston, Virginia 20195 (703) 668-8000

JAC/AMW:lak

Enclosures:	\boxtimes	Form PTO-1449(s) (1 sheet(s))
		Documents
	\boxtimes	Korean Office Action
		Fee
		Other:

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FORM HDP-1449 (Based on Form PTO-1449)

PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)

Sheet 1 of 1

ATTORNEY DOCKET No.	SERIAL NO.	
9862-000016/US	10/632,825	
APPLICANT		
Yun-Jung LEE et al.		
FILING DATE	GROUP	
August 4, 2003	2812	

 	 	INSCRIP	

U.S. PATERT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
		6,391,803 B1	05/21/2002	Kim et al.		
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FOREIGN PATENT DOCUMENTS						
Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes No	
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	Examiner's	Examiner's Document	Examiner's Document	Examiner's Initials Document Number Date Country	Examiner's Document Class/	Examiner's Initials Document Number Date Country Class/ Subclass Translation Yes

OTHER	OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)				
Ref. Desig.	Examiner's Initials				
		Korean Office Action dated May 11, 2005			

Examiner:	Date Considered: